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October 6, 2004

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OCT 6 2004

Elizabeth O'Donnell
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601

PUBLIC SERVICE
COMMISSION

RE: *In the Matter of the Investigation Into the Membership of Louisville Gas and Electric Company and Kentucky Utilities Company in the Midwest Independent Transmission System Operator*
Case No. 2003-00266

Dear Ms. O'Donnell:

Enclosed please find and accept for filing the original and ten copies of Louisville Gas and Electric Company's and Kentucky Utilities Company's Initial Data Requests for Information to The Midwest Independent Transmission System Operator in the above-referenced matter. Please confirm your receipt of this filing by placing the stamp of your Office with the date received on the enclosed additional copies and return them to me in the enclosed self-addressed stamped envelope.

Should you have any questions or need any additional information, please contact me at your convenience.

Very truly yours,


Kendrick R. Riggs

KRR/ec
Enclosures
cc: Parties of Record

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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OCT 06 2004

PUBLIC SERVICE
COMMISSION

In the Matter of:

INVESTIGATION INTO THE)
MEMBERSHIP OF LOUISVILLE)
GAS AND ELECTRIC COMPANY)
AND KENTUCKY UTILITIES)
COMPANY IN THE MIDWEST)
INDEPENDENT TRANSMISSION)
SYSTEM OPERATOR)

CASE NO. 2003-00266

**LOUISVILLE GAS AND ELECTRIC COMPANY'S AND
KENTUCKY UTILITIES COMPANY'S
INITIAL DATA REQUESTS FOR INFORMATION TO
THE MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR**

Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities Company ("KU") (collectively, the "Companies") submit their initial set of data requests for information to the Midwest Independent Transmission System Operator ("MISO").

As used herein, "Documents" include all correspondence, memoranda, notes, maps, drawings, surveys or other written recorded materials, whether external or internal, of every kind or description, in the possession of or accessible to MISO, its witnesses, consultants or its counsel. Please identify by name, title, position and responsibility the person or persons answering each of these requests for information for MISO at the bottom of each response.

1. Dr. McNamara states in his supplemental testimony at page 2, lines 2-4, that his testimony's purpose is "to provide a better understanding of the Midwest ISO's security constrained economic dispatch platform and how this centralized dispatch protocol will affect and benefit the Midwest ISO's member companies in Kentucky." The Companies, however, could find no references whatsoever to Kentucky- or LG&E/KU-specific costs, benefits or other impacts in Dr. McNamara's testimony.

- a. Please identify each and every line in Dr. McNamara's testimony where he specifically describes benefits and/or costs of MISO's security constrained economic dispatch platform that will accrue to:
 - i. all MISO companies in Kentucky, as compared to the MISO system as a whole; and
 - ii. LG&E/KU companies in particular, as compared to the MISO system as a whole.
- b. If the testimony does not contain the quantitative analysis of the costs and benefits of the MISO Day 2 market for Kentucky, the Companies and their customers, please state why Dr. McNamara did not provide such an analysis in his testimony.
- c. Please state whether MISO has conducted or is in possession of any quantitative analyses of the costs and benefits of the MISO Day 2 market for Kentucky, the Companies and their customers, other than the one that MISO submitted to the Commission in December 2003.
- d. Please provide the quantitative analysis of the costs and benefits of the MISO Day 2 market for Kentucky, the Companies and their customers identified in response to Data Request 1(c) above.
- e. Has Dr. McNamara concluded that the Companies and their customers will receive net economic benefits in the MISO Day 2 market? If so, what binding assurance is MISO willing to give the Companies and their customers that they will receive such net tangible economic benefits?

2. In its responses to the Companies' August 18, 2004 Data Requests 1, 4 and 5, MISO stated that it would provide any revisions or updates to the cost and benefit information the Companies referenced when it (MISO) submitted its supplemental testimony on September 29, 2004. Also, in response to the Companies' August 18, 2004 Data Requests 3, 19, 20 and 53, MISO stated that it had not performed the requisite analyses to answer the Companies' questions. As noted in the previous Data Request, Dr. McNamara's testimony does not appear to provide any information specific to Kentucky, the Companies and their customers to supplement the cost-benefit analysis MISO produced in December 2003, nor does it otherwise provide the information MISO stated it would provide in response to the August 18, 2004 Data Requests referenced herein.

- a. Please provide all information in MISO's possession that is responsive to all of the above-cited August 18, 2004 Data Requests, as well as any other cost-benefit analyses or information MISO has or has generated relevant to this proceeding that is not in the record in this proceeding.
- b. If MISO has no such information or analyses responsive to Data Request 2(a) above, please state that MISO has no such analyses or information, nor will it seek to introduce such analyses or information into evidence in this proceeding.

3. Dr. McNamara states in his supplemental testimony at page 14, line 11, that "[p]articipation in the Midwest ISO Energy Markets is voluntary." He further states at page 15, lines 19-22:

Nothing would prevent [the Companies] . . . from self-scheduling to meet its entire load at all times and thereby effectively never participate in the Midwest ISO markets. In any event, [the

Companies] will have the opportunity to serve its load with its own generation just as it does today.

When Dr. McNamara assures the Companies that, by self-scheduling, they can operate just as they do today and need not participate in the Midwest ISO markets, is he referring to the EMT in its entirety?

- a. If not, please list the sub-sets of the EMT market that Dr. McNamara is referring to.
 - b. If so, please confirm that by self-scheduling, the Companies may “opt out” of the EMT market in every respect except for self-scheduling.
4. The Companies do not pay other utilities’ uplift to serve their load today. Dr.

McNamara’s testimony quoted in Data Request No. 3 above appears to be consistent with MISO’s response to the Companies’ August 18, 2004 Data Request No. 21 that there would be no potential sources of costs subject to uplift and recovered through schedule charges in Day 2. If MISO and Dr. McNamara are correct that the Companies will be able to serve their load in Day 2 just as they do today by self-scheduling, then:

- a. Please explain MISO’s response to the Companies’ August 18, 2004 Data Request No. 58(e), in which MISO stated that self-scheduled load will not be exempt from uplift of GFA Option B or NCA congestion costs.
- b. Please describe the process by which MISO will uplift the cost of a defaulting Market Participant’s Uncollectible Obligation and explain why MISO did not account for this uplift in Dr. McNamara’s supplemental testimony or in its response to the August 18 Data Request No. 21.

- c. Please quantify the Companies' share of MISO Day 2 redispatch costs and quantify whether this is a net cost or benefit as compared to the Companies' current redispatch costs.

5. With respect to Dr. McNamara's assertion in his supplemental testimony at page 15, lines 19-22, that the Companies "will have the opportunity to serve [their] load with [their] own generation just as [they] do[] today":

- a. Will the change to a regionally coordinated, bid-based security constrained economic dispatch be the first time MISO has mandated rules, beyond those implied in NERC operating policies, specific to the day-to-day operation and scheduling of utility-owned generation?
- b. Given the EMT day ahead must offer requirements for Designated Network Resources and the EMT Reliability Assessment Commitment process, by what time must the Companies determine what they have on hand as "excess capacity"?
- c. Please provide all studies, analyses and reports in MISO's possession that indicate MISO's reliability policies, standards, protocols and practices are consistent with Kentucky's statutory requirement that its retail ratepayers have the highest priority of service (KRS 278.214).

6. Dr. McNamara states in his supplemental testimony at page 27, lines 7-8, his view that the Midwest ISO's mechanisms "also support load serving entities with default supply or standard offer service obligations."

- a. Is it Dr. McNamara's view that the Companies are "load serving entities with default supply or standard offer service obligations"?

- i. If yes, please provide all information, analyses and other documents upon which Dr. McNamara relies to make this statement.
- ii. If no, please explain and quantify how this “support” is beneficial to the Companies and their customers?

7. If “[p]articipation in the Midwest ISO Energy Markets is voluntary” (page 14, line 11) and the Companies can “effectively never participate in the Midwest ISO markets” (page 15, lines 20-21):

- a. Why are self-scheduled resources and load subject to LMP in the settlement process?
- b. Please explain how the Companies, which nearly always have greater available generation capacity than their load requires, can “effectively never participate in the Midwest ISO markets,” given that the EMT requires the Companies to bid all their available non-self-scheduled generation capacity into the Day 2 markets?
- c. In satisfying the day-ahead must offer and RAC offer requirements, does the Companies’ obligation to serve native load supercede any mitigation measures (such as price-mitigating measures) that might be imposed by the Independent Market Monitor?
- d. If, as MISO contends at page 15, lines 20-21, the Companies can “effectively never participate in the Midwest ISO markets,” explain in detail why, in Day 2, the Companies and their customers will be subject to the following:

- i. LMP and FTR;
- ii. congestion uplifts for NCA entities;
- iii. Schedules 16 and 17 fees;
- iv. unit commitment uplift; and
- v. Uncollectible Obligation uplift.

8. Dr. McNamara states in his testimony at page 6, line 18, through page 7, line 1:

Most importantly, TLRs are inherently inefficient because they take little account of economics, which leads to the curtailment of otherwise economic transactions and thus to an inefficient utilization of the grid. If economic redispatch is not available to support transmission service, then the only practical way to avoid excessive use of TLRs after the fact is for the transmission provider to be overly conservative in granting transmission service before the fact, a solution that clearly leads to an under-utilization of the physical grid.

- a. Please quantify the net cost or benefit to the Companies that MISO claims that an LMP and FTR-based security constrained economic dispatch will yield over the TLR-based system in place today.
- b. What percentage of the time in contingent situations have local control area operators in MISO employed redispatch to resolve those contingent events?
 - i. What percentage of the time in contingent situations have the Companies employed redispatch to resolve those contingent events?
- c. What is the number of curtailed MWh in MISO as a percentage of all MWh transacted over MISO monitored flowgates over the past three years?

- i. What is the number of MWh the Companies have curtailed as a percentage of all MWh transacted over the Companies' flowgates that MISO monitors over the past three years?
- d. What percentage of all TLR events were addressed through redispatch in the past three years?
- e. Please define the phrase "overly conservative" as used in Dr. McNamara's testimony cited above.
- f. Would MISO characterize the use of TLRs within the MISO region as "excessive"? What is MISO's definition of "excessive use of TLRs after the fact"?
- g. Is Dr. McNamara contending that the MISO withholds transmission capacity because there might be the possibility that a TLR would have to be called in real time?
- h. How much does the MISO reduce the use of the transmission grid through this "overly conservative" granting of transmission service?
- i. Does the MISO have any measure of whether this "overly conservative" reduction in transmission utilization has led to a reduction in the number of TLRs called within the past three years? If so, please provide this information for MISO and for the Companies.

9. Please provide any quantitative analysis or empirical evidence of the impacts on Kentucky, the Companies and their customers that supports the following statements from Dr. McNamara's supplemental testimony:

- a. “The Midwest ISO’s enhanced regional capabilities, and use of more precise and responsive reliability tools, such as a regional state estimator and regionally-coordinated dispatch, will replace the current system that relies on multiple control areas, multiple dispatch, and extensive coordination between those areas” (see page 10, lines 13-17).
- b. “...the addition of the EMT and its energy markets will significantly improve how transmission service is supported in the Midwest ISO” (see page 11, lines 1-2).
- c. “This more efficient regional dispatch can then serve loads that are relying on the regional dispatch at the lowest cost” (see page 27, lines 19-20).
- d. Please state what assurances are available for the Companies and their customers that Dr. McNamara’s statements referenced above are accurate.

10. Dr. McNamara states in his testimony at page 8, lines 14-15, that “the inability to fully utilize the capabilities of the transmission system during periods of high demand for transmission services has produced significant economic costs.” Please provide any quantitative analysis of the “significant economic costs” associated with the claimed under-utilization of the grid that impacts Kentucky, the Companies and their customers.

11. What is the percentage reduction in the number of TLRs that will occur under the EMT and that will impact Kentucky, the Companies and their customers (see page 8, lines 20-22)? Please provide a quantitative analysis to support your response.

12. Dr. McNamara states in his supplemental testimony at page 9, lines 16-18:

Transmission service between the Midwest ISO and neighboring regions, and transmission service that has sources and sinks outside the Midwest ISO Region but causes loop flows through the Midwest ISO Region, may still be subject to TLRs.

- a. Is Dr. McNamara contending that there will never be any situations in which MISO will have to resort to TLRs to curtail transactions sourcing or sinking within the MISO footprint? Please provide quantitative analysis specific to Kentucky, the Companies and their customers.
- b. Is Dr. McNamara aware of any other RTO's use of TLRs within a Day 2-type market context? If so, please describe in detail.
- c. Will the problem of loop flows be more acute for the Companies because they border non-market control areas (EKPC, TVA and BREC) than for other MISO market participants? Please provide any analyses that quantify any costs this problem will impose on the Companies and their customers.

13. Please provide a quantitative analysis of what difference it will make, if any, to the outcome of the MISO's security constrained economic dispatch process if the Companies were no longer members of MISO (see page 8, line 17, through page 10, line 17).

14. Dr. McNamara states in his supplemental testimony at page 14, line 24, through page 15, line 6:

[I]t is hard to imagine that there will never be an instance where the cost of supplying power from its own generation resources will be higher than the cost of meeting its load obligations with power from outside suppliers. When a supplier other than LG&E offers its power at a lower cost than LG&E is able to produce power from its own generation resources, it may well be less costly for LG&E to use the market to meet its load obligations. In a competitive market, LG&E will have the option to serve its load with lower cost power from other generation resources and thereby forego the need to run its higher cost generating units.

- a. Please provide a quantitative analysis of the difference between the cost of power purchased from outside suppliers when the Companies are members of MISO and what that cost would be if the Companies were not MISO members.
- b. Is it MISO's understanding that the Companies cannot now transact with other entities when it is more cost-effective to purchase power off-system than to produce their own?
- c. Will the Companies be able to buy power from MISO members if the Companies are not members themselves? If so, please explain how such transactions will occur in Day 2.

15. Dr. McNamara states in his supplemental testimony at page 15, lines 8-12:

Similarly, LG&E, with its ability to produce relatively low cost power, will have the opportunity to capitalize on this by offering its excess generation into the market. Any online generation that LG&E does not use to serve its load may be offered into the market for sale to other Market Participants. This generation, which would otherwise be idle, can be used to provide LG&E with additional revenues.

- a. Please provide a quantitative analysis of the net off-system sales revenue losses or gains the Companies can expect as MISO members in Day 2 versus the Companies' operating as transmission owners with third-party reliability coordination services.
- b. Is it MISO's understanding that the Companies cannot now sell excess power off-system?

- c. Will the Companies be able to sell power to MISO members if the Companies are not members themselves? If so, please explain how such transactions will occur in Day 2.

16. Dr. McNamara states in his supplemental testimony at page 16, line 3, that “use of LMP will enhance Midwest ISO’s ability to ensure reliable operations.” Please provide a quantitative analysis of the net detriment or improvement in reliability that Kentucky, the Companies and their customers can expect under MISO’s proposed LMP-based, security constrained economic dispatch versus today’s TLR-based redispatch system.

17. In his supplemental testimony, Dr. McNamara cites as a failing of PJM’s uniform-pricing market that “redispatch costs were socialized across all grid users by the uniform pricing system, so that transactions that caused or exacerbated congestion were being subsidized for their redispatch costs by other parties whose transactions did not cause or exacerbate congestion” (page 21, lines 20-23). Dr. McNamara further states that “[t]he LMP methodology is the necessary mechanism for pricing the marginal cost of redispatch, so that grid users can be properly charged for the costs they impose on the system; this allows the Midwest ISO to offer redispatch in support of reliability without fear of cross subsidies” (page 16, lines 5-9).

- a. Please explain how MISO Day 2’s uplift of NCA entities’ congestion costs is different from the “subsidiz[ation]” that occurred in PJM, if indeed there is any difference, and why this uplift is not in fact the kind of “cross-subsid[y]” Dr. McNamara assures the Commission will not occur under Day 2’s LMP-based system.

- b. Please provide a quantitative analysis of the costs Kentucky, the Companies and their customers will bear as a result of their “subsidiz[ation]” of NCA entities’ congestion costs in Day 2.

18. Dr. McNamara states in his supplemental testimony at page 16, lines 17-19, that “LMP eliminates the gaming of market offers and bids that tend to plague markets that use alternative pricing approaches, such as zonal or uniform pricing.” He later states, however, that “the use of LMPs will eliminate much of the gaming of market offers and bids that tend to plague markets that use alternative pricing approaches” (page 29, lines 5-6) (emphasis added).

- a. What is MISO’s definition of “gaming of market offers and bids”?
- b. By this statement, does MISO contend that the use of LMPs eliminates the exercise or abuse of market power? Please provide quantitative analysis to support your answer.
- c. Please provide any evidence MISO has that such gaming exists in today’s markets. Please explain in detail what gaming occurs today and quantify the cost to Kentucky, the Companies and their customers.
- d. Will MISO guarantee that no gaming will ever occur under the EMT?
- e. If LMP will eliminate only “much of the gaming,” please describe the remaining gaming that MISO anticipates to occur under the EMT.

19. Dr. McNamara states in his supplemental testimony at page 16, lines 17-19, that “LMP eliminates the gaming of market offers and bids that tend to plague markets that use alternative pricing approaches, such as zonal or uniform pricing.”

- a. Is either zonal or uniform pricing utilized in the bilateral market that participants utilize within the MISO footprint today?

- b. How are parties, such as loads within NCAs or loads served by FERC-approved Option B settled Grandfathered transmission service, who in MISO Day 2 will only be subject to a fraction of even their current cost-based congestion costs, incentivized to schedule congestion-reducing transactions?
- c. What concerns, if any, does MISO have with respect to the untoward opportunities present in its Day 2 market design that on the one hand socializes NCA and Grandfather Option B settlement congestion costs, and on the other hand through high nodal LMPs individually rewards generators that provide congestion relieving counterflow?

20. Dr. McNamara states in his supplemental testimony at page 18, lines 7-9, that “[t]he Midwest ISO will administer a system of financial transmission rights (“FTRs”) to support the use of LMP for pricing congestion and transmission usage and to allow parties to lock in transmission prices in advance of real-time operations.”

- a. Please provide a quantitative analysis of what has been the experience in other RTOs, such as PJM, with the ratio of the actual payout on FTRs relative to the nominal value of FTRs in recent years.
- b. Please provide a quantitative analysis of the ratio of the actual payout on FTRs relative to the nominal value of FTRs that MISO expects the Companies will receive in Day 2.

21. Dr. McNamara states in his supplemental testimony at page 22, lines 16-21:

[P]aying each generator the LMP for its injections at each location will tend to encourage new resource additions more at those locations with higher LMPs than at those locations with lower LMPs. The higher LMPs will tend to be at locations where there is

less supply relative to demand, so LMP-induced resource additions at those locations will tend to increase supply competition, lower prices, reduce congestion and mitigate market power.

- a. Please provide a quantitative analysis of the actual number of MW of generation capacity that would be encouraged to site in the MISO region and Kentucky as a result of LMPs sufficiently high to satisfy that requirement.
- b. Please provide a quantitative analysis to show how the use of short-term LMPs encourages the Companies to plan optimally for the long-term capacity and energy needs of their customers.
- c. Please provide historical evidence that the application of LMPs has resulted in transmission investment in RTOs, such as PJM, New York ISO, and ISO New England.
- d. Notwithstanding Dr. McNamara's contention in his testimony, is Dr. McNamara aware that MISO employees during the stakeholder process have told the Companies that transmission upgrades will be decided on the basis of economics, not reliability?
- e. If an LMP market truly will provide the proper incentives for additional investment, why does the EMT create additional sources of revenue for generators (see page 25, lines 13-16)?

22. Dr. McNamara states in his supplemental testimony at page 24, lines 5-13, that “[t]he Midwest ISO-coordinated markets will enhance regional trading in several ways” and then proceeds to list four ways in which MISO claims it will enhance regional trading. If the Companies cease to be MISO members, will the alleged enhancements to trading in the MISO-

coordinated markets still be available to them? If not, please specify and quantify any differences the Companies can expect from:

- a. The Midwest ISO real-time balancing market and its impact on LG&E/KU's ability to perform bilateral contracting and trading;
- b. The real-time and day-ahead energy markets and their impact on LG&E/KU's ability to sell uncontracted power and to buy to cover uncontracted demand;
- c. The use of FTRs as compared to firm point-to-point transmission as a means to provide price certainty to transactions in the face of congestion and curtailment uncertainty; and
- d. The use of LMP as compared to bilateral prices to reveal economic opportunities for commercially beneficial trades.

23. Dr. McNamara states in his supplemental testimony at page 8, lines 9-11, that MISO found an average of 7.78% unused available flowgate capacity during the 28 examined TLR events in Kentucky.

- a. Does this 7.78% number include the 5% assumed unused flowgate capacity resulting from the 95% Operating Security Limit target associated with NERC TLR initiation?
- b. Please provide a quantitative analysis of the net cost or benefit Kentucky, the Companies and their customers can expect under Day 2 from MISO's claimed ability to increase flowgate utilization.

24. Dr. McNamara states in his supplemental testimony at page 28, lines 18-19, that “[o]nly the amounts actually purchased from the Midwest ISO spot markets would be priced at the Midwest ISO spot market-clearing prices.”

- a. Please reconcile Dr. McNamara’s statement with MISO’s response to the Companies’ August 18, 2004 Data Request No. 54, which states that in MISO Day 2 100% of the load within MISO will pay the market-clearing price.

Dated: October 6, 2004

Respectfully submitted,



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Company and Kentucky Utilities Company

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing Initial Data Requests was served via first class U.S. mail, postage prepaid, this 6th day of October 2004, upon the following persons:

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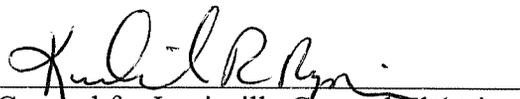
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